SAMSUNG TECHWIN

iPOLiS Network Design Tool User Guide

Explains how to use iPOLiS Network Design Tool that helps designing network surveillance system with multiple Samsung Techwin network products.

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What is iPOLiS Network Design Tool?

iPOLiS NW Design Tool is a graphical drawing application that helps you to design network surveillance system with Samsung Techwin network products.

With this application, you can do following:

- To search and select a desired product
- To design and draw network system diagram with analog/network product shapes
- To edit properties - description, IP configuration, video setup, etc and verify products information
- To simulate network bandwidth of transmitting/receiving per a product
- To print or export to image of network system diagram

Installing iPOLiS NW Design Tool

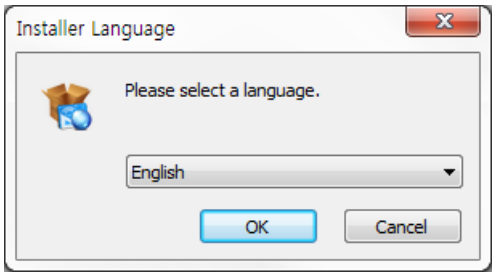
1. PC requirement

OS	Windows XP SP3, Windows Vista, Windows 7, Windows 8
Prerequisite installation	Microsoft .NET Framework 4 Client Profile
CPU	Pentium III CPU 1GHz or higher
RAM	512MB or more
Hard disk	1GB or more
Video graphic card	1024 X 768 or higher, 32bit high color
Supported language	Korean, Chinese, Japanese, English, Polish, Romanian, Spanish, Turkish, French

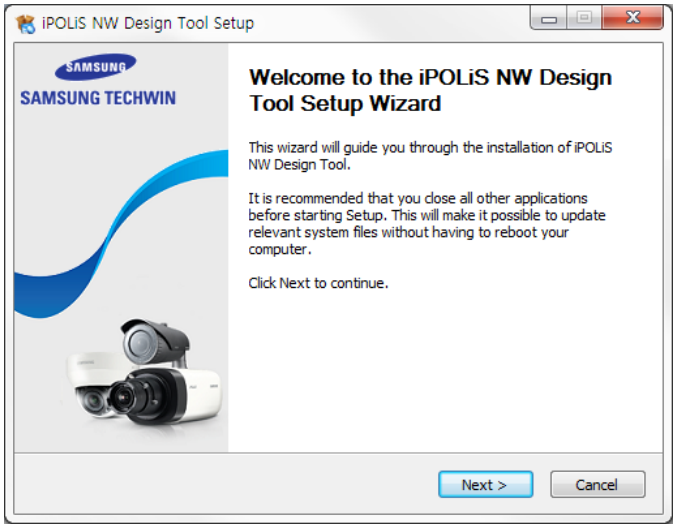
2. Installation

Step 1. Double click installation file to start.

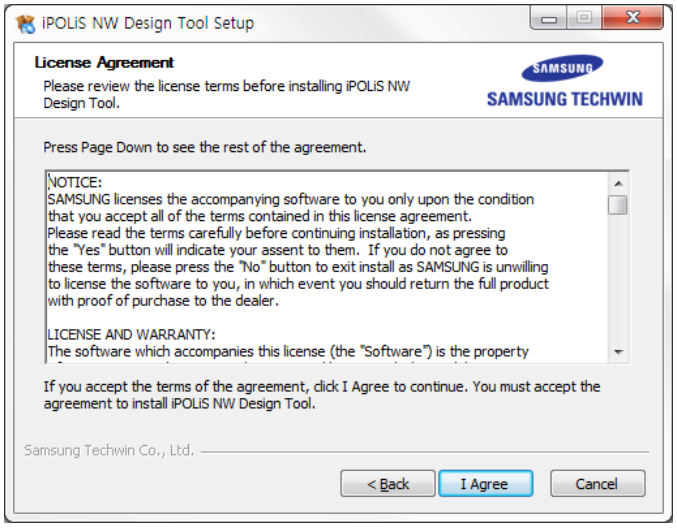
Step 2. Select the language you want to install, and click [OK].



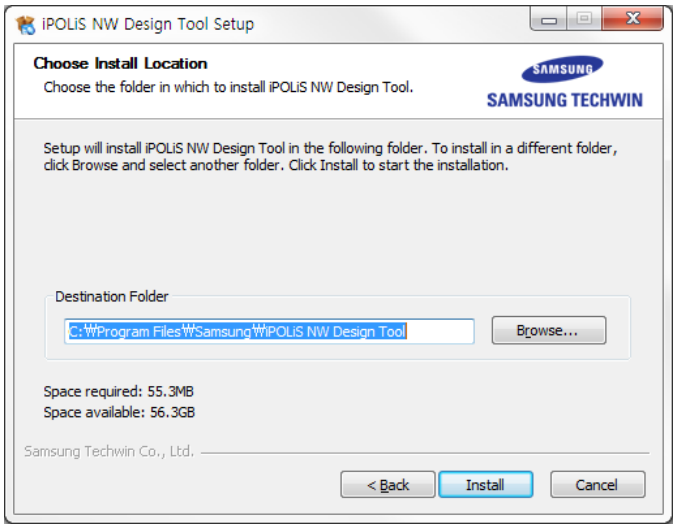
Step 3. Click [Next >] when the installation wizard starts.


iPOLiS NW Design Tool Setup
SAMSUNG
SAMSUNG TECHWIN
Welcome to the iPOLiS NW Design Tool Setup Wizard
This wizard will guide you through the installation of iPOLiS NW Design Tool.
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
Next >
Cancel

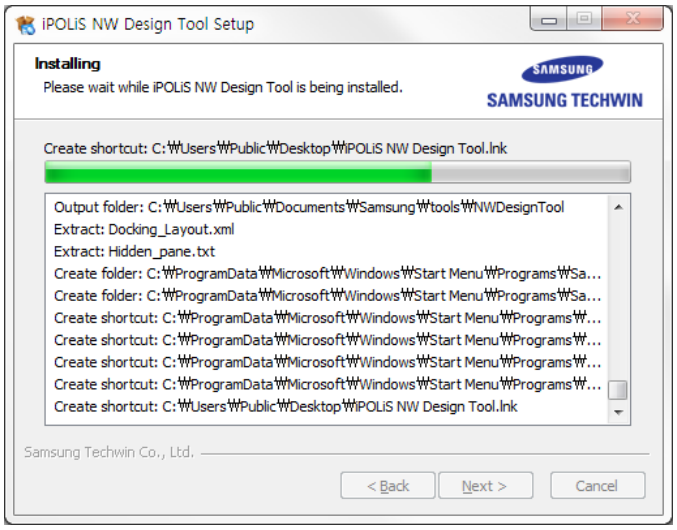
Step 4. Read the license agreement carefully and click [I Agree] to proceed with the next step.


iPOLiS NW Design Tool Setup
License Agreement
Please review the license terms before installing iPOLiS NW Design Tool.
SAMSUNG
SAMSUNG TECHWIN
Press Page Down to see the rest of the agreement.
NOTICE:
SAMSUNG licenses the accompanying software to you only upon the condition that you accept all of the terms contained in this license agreement.
Please read the terms carefully before continuing installation, as pressing the "Yes" button will indicate your assent to them. If you do not agree to these terms, please press the "No" button to exit install as SAMSUNG is unwilling to license the software to you, in which event you should return the full product with proof of purchase to the dealer.
LICENSE AND WARRANTY:
The software which accompanies this license (the "Software") is the property
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install iPOLiS NW Design Tool.
Samsung Techwin Co., Ltd.
< Back
I Agree
Cancel

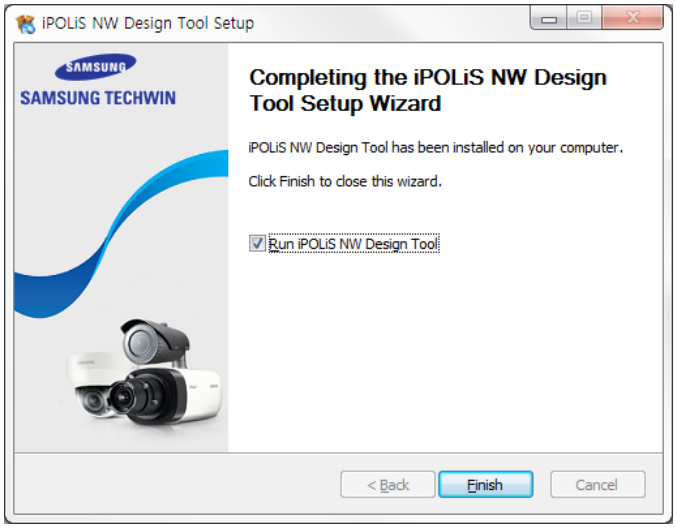
Step 5. Choose the destination folder, and click [Install].


iPOLiS NW Design Tool Setup
Choose Install Location
Choose the folder in which to install iPOLiS NW Design Tool.
SAMSUNG TECHWIN
Setup will install iPOLiS NW Design Tool in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.
Destination Folder
C:₩Program Files₩Samsung₩iPOLiS NW Design Tool
Browse...
Space required: 55.3MB
Space available: 56.3GB
Samsung Techwin Co., Ltd.
< Back
Install
Cancel

Step 6. The Wizard starts installing the iPOLiS NW Design Tool.



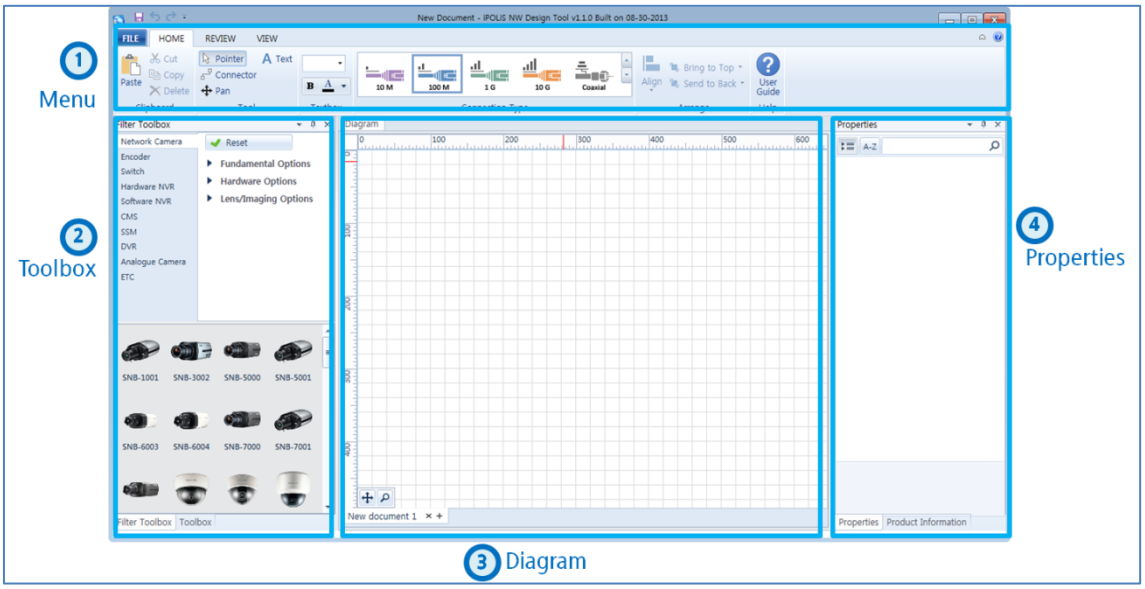
Step 7. When the installation is completed, click [Finish] to complete the installation.


iPOLiS NW Design Tool Setup
SAMSUNG TECHWIN
Completing the iPOLiS NW Design Tool Setup Wizard
iPOLiS NW Design Tool has been installed on your computer.
Click Finish to close this wizard.
Run iPOLiS NW Design Tool
< Back
Finish
Cancel

Functions

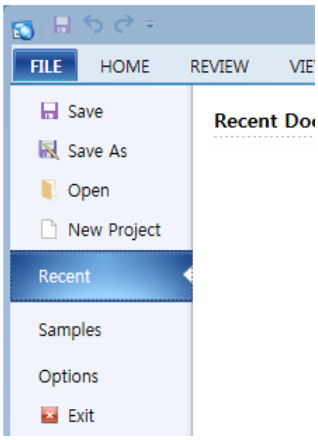
1. Screen composition

iPOLiS NW Design Tool consist of menu, toolbox, diagram, and properties pane.



1. Menu bar - Loaded with executable menu buttons
2. Filter toolbox - Provides product filtering and selection
3. Diagram - Draws system diagram by using product objects and connectors
4. Properties - Provides product information and its properties

2. New / Save / Open project



➢ New

To clear the current diagram and make it initialized, click [FILE] > [New Project].

➢ Save

To save the current diagram including properties and products information, click [FILE] > [Save]. The project file is stored in *.sndt format. To save the project file in a desired location, select a folder in the Save dialog box. When you save an existing project, it saves the changes so far.

➢ Save As

To save as a new project with the current diagram, click [FILE] > [Save As]. Even though it is an existing project file, it creates a new file in a user defined location.

➢ Open

To open the original project file including system diagram and properties, click [FILE] > [Open]. In the Look in list or navigation pane, click the folder that contains the project file that you want to open.

➢ Recent Documents

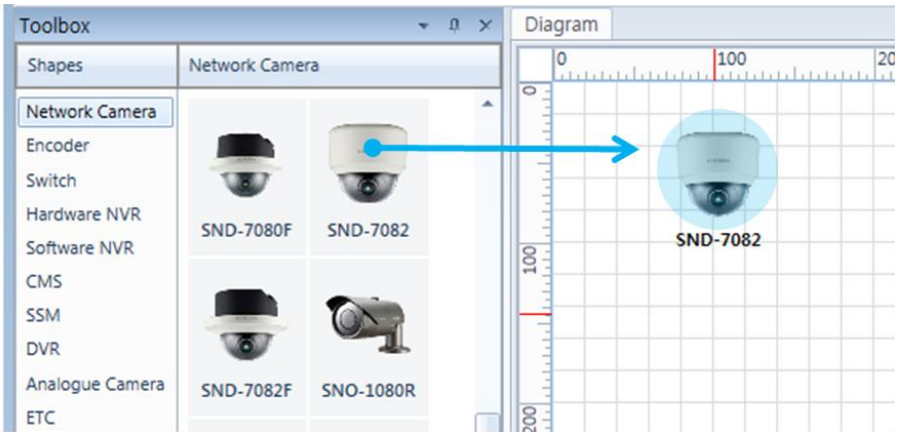
To display a list of files that you most recently used, click [FILE] > [Recent]. In the project list, click the file that you want to open.

➢ Sample Documents

To display 5templates of system diagram, click [FILE] > [Samples]. In the template list, click the file that you want to open.

3. Select & Add a device

To create your drawings, drag a device from toolbox onto the diagram pane.



➢ To search and select a device according to product specification

1) Click [Filter Toolbox] tab from toolbox pane.
2) Choose one of product category and its options, it displays search result with products satisfied the user selected options.

> Select one device from the list. You can verify its technical specification from [Product Information]

> tab on [Properties] pane.

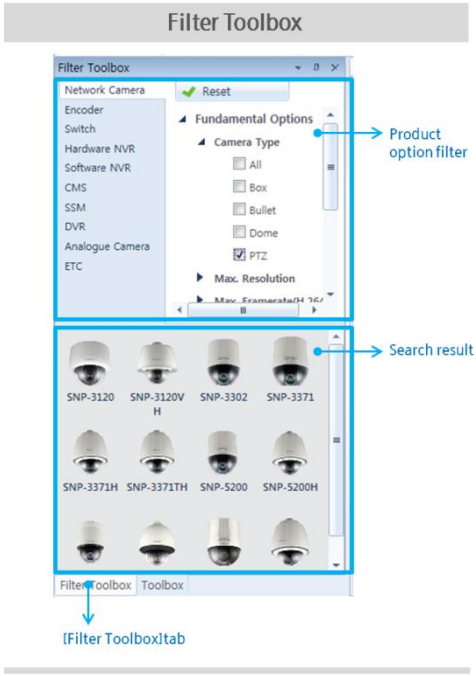
3) Select one of desired product from search result, and drag it onto a diagram pane.

➢ To select a device from entire list

1) Click [Toolbox] tab from toolbox pane.
2) Select a desired product category from [Shapes], it displays entire product list of the relevant category.

> Select one device from the list. You can verify its technical specification from [Product Information] tab on [Properties] pane.

3) Select one of desired product from search result, and drag it onto a diagram pane.



➢ Search

To search devices with model name or some parts of model name.

1) Select [Search] from filter toolbox
2) Input model name or some parts of model name

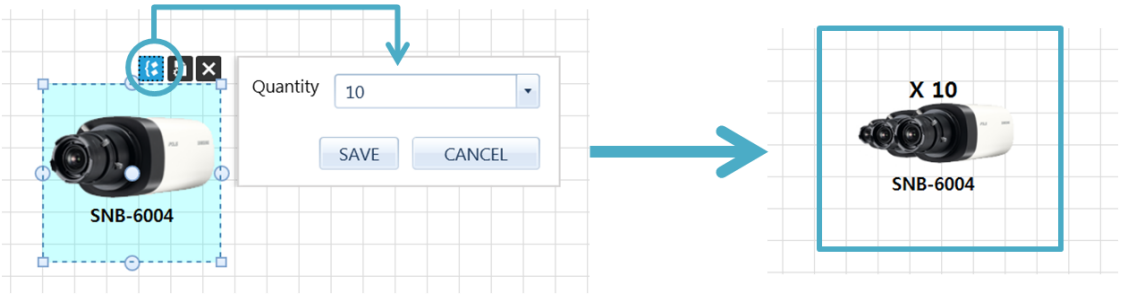
> Select one device from the list. You can verify its technical specification from [Product Information] tab on [Properties] pane.

3) Drag a device from search result list onto the diagram pane.

➢ To add a group of device

To add multiple devices of same model, make a group of device.

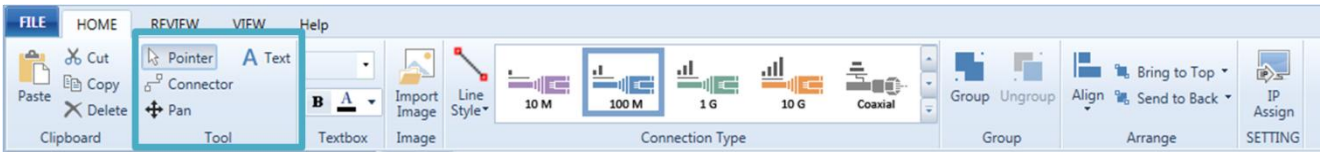
1) Drag a device from toolbox onto the diagram pane.
2) Select a created device and select [Edit] button on the top of the device image. Then, dialog appears for setting the quantity of devices.
3) After enter or select the number of devices, click [SAVE] button.



> When you connect group device with switch, you can set the quantity of camera up to the number of usable ports.

4. Draw a diagram

To select object on a diagram, click [HOME] > [Tool] > [Pointer], and with the selection arrow, click any objects that you want to select.



➢ Select one object

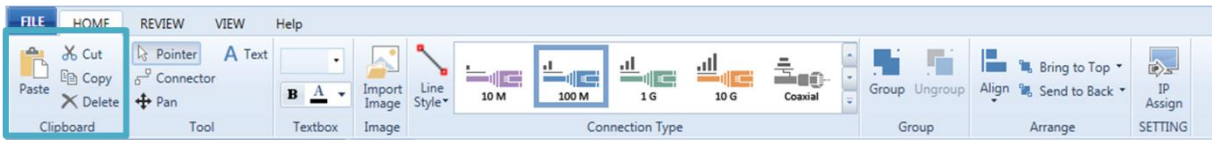
Click one object. The selected object displays selection handles.

➢ Select multiple objects

- Click on the diagram and drag - a selection area appears. Surround around all the objects that you want to select.
- Or hold down the CTRL key and click each object.

The selected objects are outlined by a temporary box with selection handles. To quickly select all objects on the diagram, press [CTRL + A] key.

➢ Copy/Cut/Paste/Delete objects



Copy and paste are two commands that make it simple to reuse objects, without having to recreate it from toolbox.

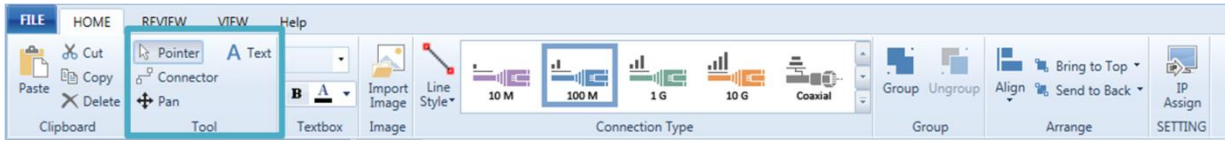
1) Select one or more objects from a diagram.
2) With objects selected, choose one of the following actions from [HOME] > [Clipboard] group.
   A. **Paste**: Visibly insert the object, which preceded [Cut] or [Copy].
   B. **Cut**: Immediately remove the selected object from its original position, and later inserted when the [Paste] command is issued.
   C. **Copy**: Create a duplicate, and later inserted when the [Paste] command is issued.

   > You can also use standard keyboard shortcuts, such as [CTRL + C] to copy and [CTRL + L] to paste.

   D. **Delete**: Erase the selected objects from a diagram.

➢ Move objects

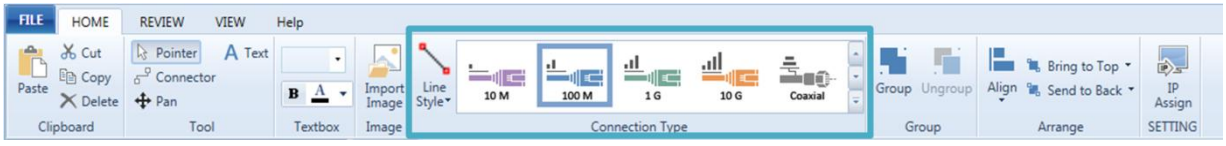
With the selection arrow - by clicking [HOME] > [Tool] > [Pointer], click and move the objects where you want it, release the mouse button.



➢ Connect between objects

You can connect between two devices. Connector is drawing element that indicates which device is physically linked to which device. Objects and connectors together give the complete diagram.

The connection type can be selected from [HOME] > [Connection Type], it indicates transmittable data rate.



- 10M - Network connector which has max. 10Mbps transmission speed.
- 100M - Network connector which has max. 100Mbps transmission speed
- 1G - Network connector which has max. 1Gbps transmission speed
- 10G - Network connector which has max. 10Gbps transmission speed
- Coaxial - Analog connector
- Wireless - Wireless network connection
- ETC - Common connector, such as HDMI, USB or Serial Cable

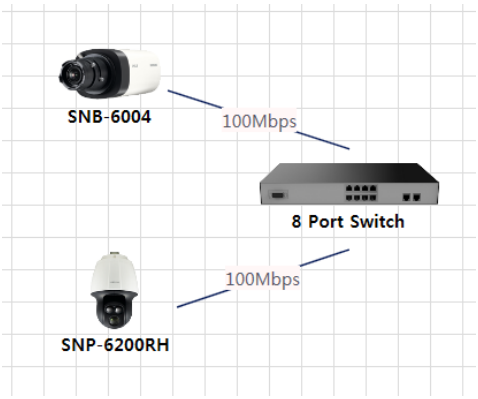
> When connect 2devices of analog type, connect them with analog (coaxial) connector automatically.
>
> When connect network camera/encoder and switch, connect them 100M connector automatically.

> When connect 2 devices are used wireless communication between them, connect them with wireless connector automatically
>
> When need to connect using common connector, connect them ETC connector automatically.

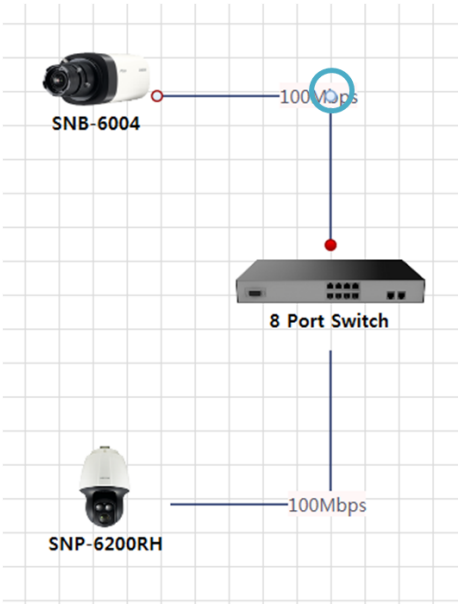
A. Choose style for connection

Select connection style for using your diagram.

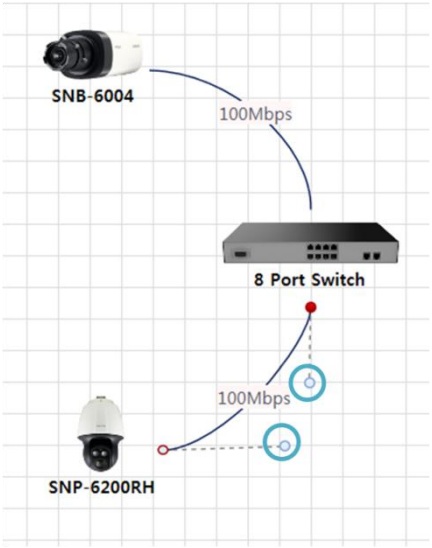
- Straight: Using straight line for connecting between 2 devices



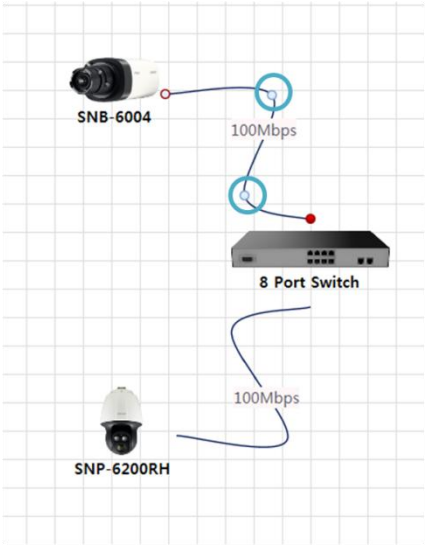
- Polyline: Using polygonal line for connecting between 2 devices. You can change shape of your polyline by adjusting one or two intermediate points.



- Bezier: Using Bezier line for connecting between 2 devices. You can change angle of your Bezier line by adjusting two auxiliary points.

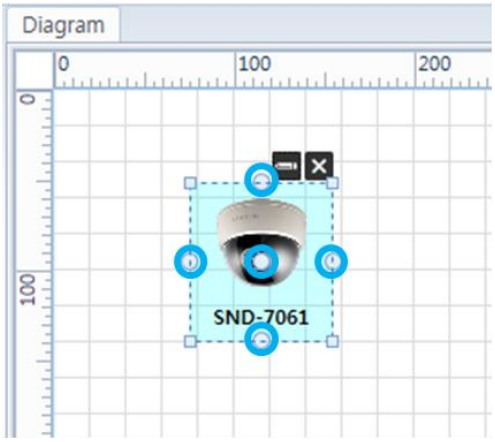


- Spline: Using spline for connecting between 2 devices. You can change shape and angle of your spline by adjusting two intermediate points

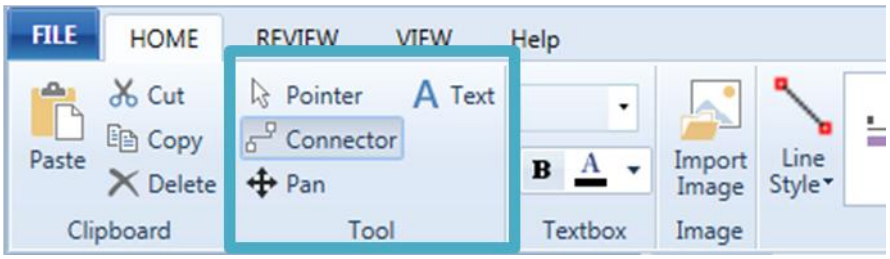


B. Connect with mouse [Pointer]

Select [HOME] > [Tool] > [Pointer]. When an object selected, it provides visual cues that show you where connections can be made. Each point at which a connection can be made is marked with a connection point, as below figure shows in blue. Click one of connection points on an object, drag it to another object.



C. Connect with mouse [Connector]



Select [HOME] > [Tool] > [Connector]. Position the [Connector] over the center of the first object until you see a red border around the entire object. Drag to the center of the second object. When you release the mouse, it displays red handles to show that the objects are connected.

> Connecting between two objects means physical connection between two devices. To make the network configuration for communication, use [IP configuration], [Video setup], and [Channel configuration] on [Properties] pane.
>
> If it is not possible to make a physical connection, an error dialog appears.
>
> When all network port are in use (already made all the physical connections), an error dialog appears.

D. Change your connection style

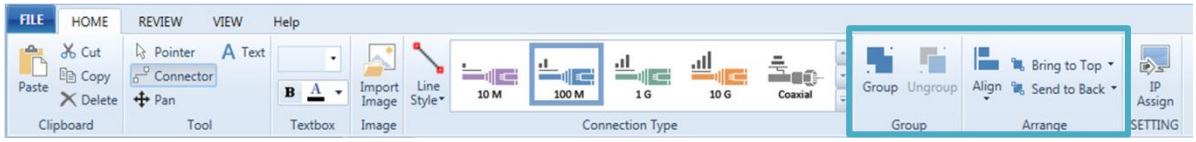
You can change your connection style choosing other connection style after selecting particular connection,

> You can change style of multiple lines at once

➢ Arrange objects

iPOLiS NW Design Tool has manual guides to help ensure the objects in your diagram are arranged well. That helps make your drawing as clear as possible and give it a professional look.

Select the objects you want to arrange, and click the arrangement option you want from [HOME] > [Arrange].



A. Group: To make a group from selected several devices.

B. Ungroup: To separate a group to each device.

C. Align > Align Left: To align the edges of the objects to the left

D. Align > Align Center: To align the objects vertically through their centers.

E. Align > Align Right: To align the edges of the objects to the right.

F. Align > Align Top: To align the top edges of the objects.

G. Align > Align Middle: To align the objects horizontally through their middles.

H. Align > Align Bottom: To align the bottom edges of the objects.

I. Bring to Top > Bring Forward: To bring the object forward one level.

J. Bring to Top > Bring to Top: To bring the object to the front.

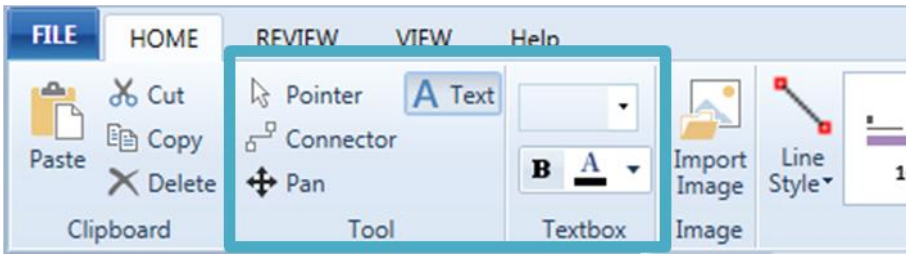
K. Send to Back > Send Backward: To send the object backward one level.

L. Send to Back > Send to Back: To send the object to the back.

> It changes an object's position in the stacking order so that one appears in front of another.

➢ Add a text

It's often helpful and sometimes necessary to add text to the drawing.

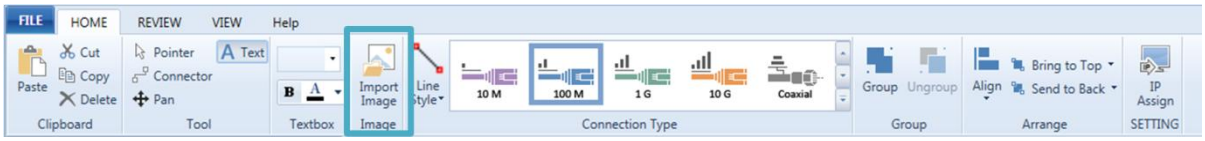


Click [HOME] > [Tool] > [Text]. Click and drag to draw an area where text to be added. Click the green edit box and start typing. When you finish typing, click on a blank area of the drawing diagram or press [ESC].

Select a text box, and click [Bold] from [HOME] > [Textbox] to make the text becomes bold. You can also change the font color and size of text with [Font Color] and [Font Size].

➢ Add a images

Such as background images, you can add external image files in a diagram.



> You cannot make any connection with image files
>
> iPOLiS NW Design tool support image file extension especially PNG, JPEG(JPG) and BMP for adding external images

A. Import your image file

Using [Import Image] button, you can add image file stored on your computer in a diagram.

B. Copy and Paste your image file

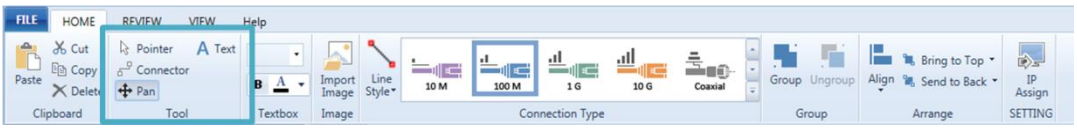
You can copy and paste clipboard images, such as Screenshot images or Data from MS Visio, in a diagram. Copy your image, and press [Ctrl+V] or click [Paste] button.

➢ Zoom and pan in a diagram

You can zoom in for a closer look at your drawing and move the diagram around (or "pan" the diagram) to view the section you want

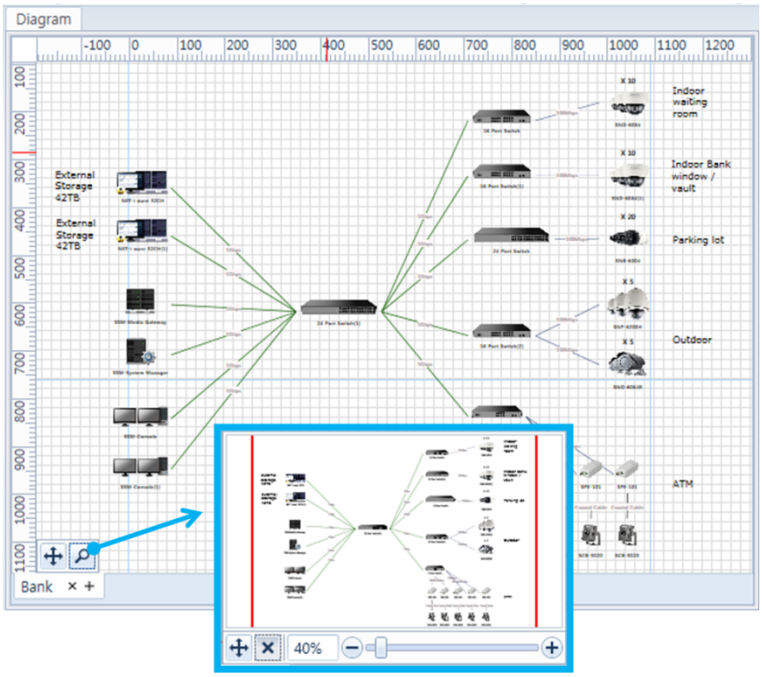
A. Pan a diagram

Select [HOME] > [Tool] > [Pan]. A mouse pointer changes into finger shape. You can pan to view other sections of the diagram by dragging the mouse over the section you want to view

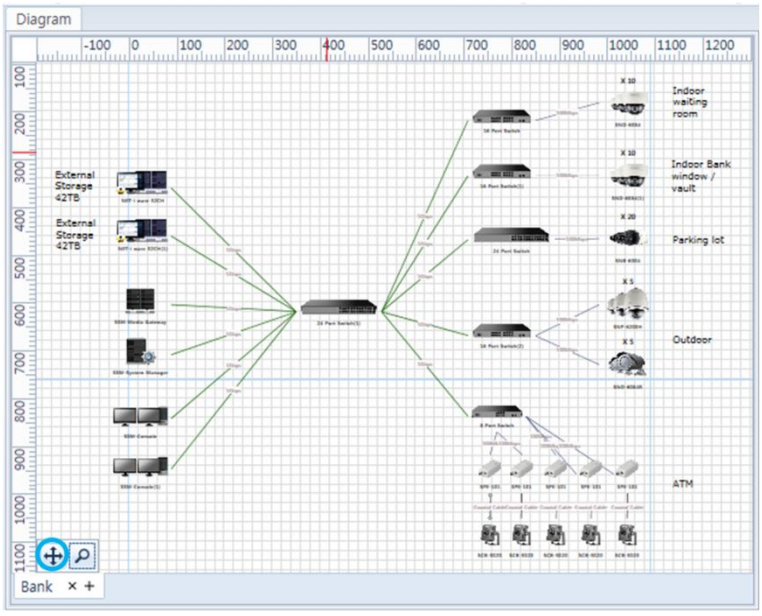


B. Zoom a diagram

Click zoom icon on the bottom of diagram pane. It includes a slider that sets the zoom level.



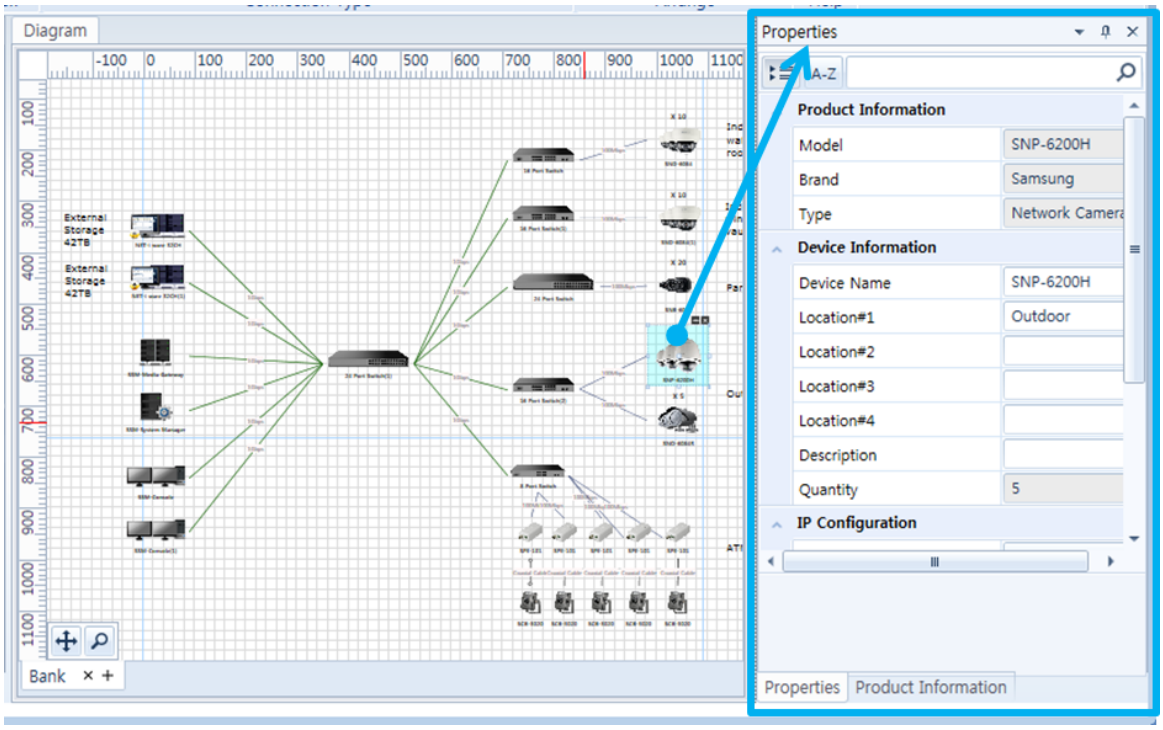
[Auto Fit] button fits the diagram to the size of the current diagram.



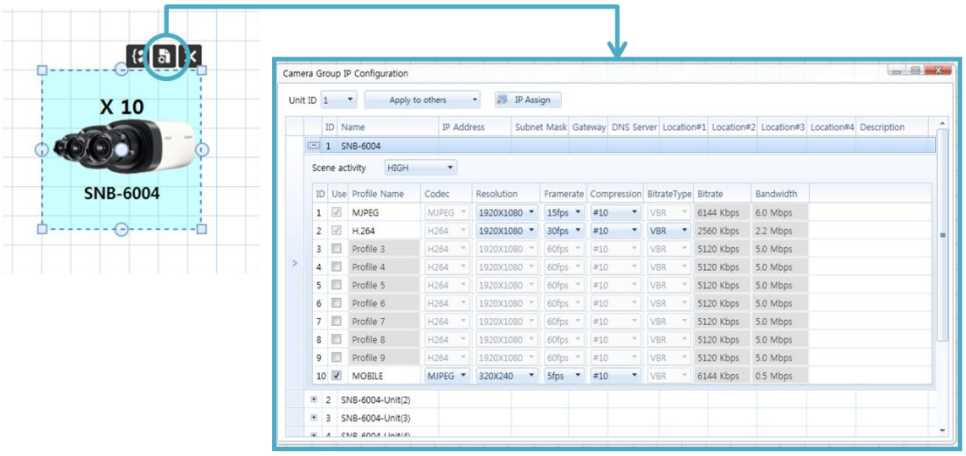
5. Configure an object properties

You can setup a properties of an object which is a system component placed in a diagram.

Select an object on a diagram and verify/edit information on [Properties] pane. The properties vary depending on the product category of the selected object.



Or, select the device which you want to set properties and click the Advanced Setup icon for set up properties of single or multiple devices



Setting properties depend on each product's type.

➢ Network Camera

A. Device Information: Basic information of a camera object.

- Name: Specify the name of camera. The default name is camera model number.
- Location #1 ~ #4: Specify the location where the camera is installed. According to a whole system diagram, up to 4-depth location can be specified.

- Description: Input the relevant information on the camera.
- Quantity: Display the number of cameras for group object.

B. IP Configuration: Network information of a camera object.

- Address Type: Specify one of network address type.
- IP Address: Enter network IP address.
- Subnet Mask: Enter subnet mask address.
- Gateway: Enter network gateway address.
- DNS Server: Enter DNS server address.

C. Advanced Setup: Open the advanced setting window for video profile setting of a camera.

- Unit ID: Select ID of camera.
- Apply to others: Apply profiles to other selected camera.
- IP Assign: Set the network address of single device or multiple devices.
- Scene activity: Specify how complex scene and frequent movement the video has. If a video includes complex patterns or a lot of movements, select 'HIGH'. Otherwise, the video includes simple background and rare movement, select 'LOW'
- Use: Select or clear whether the camera uses multiple profiles or not.
- Profile options (Codec/Resolution/Framerate/Compression/Bitrate Type/Bitrate): Specify video settings for each profile.

➢ Encoder

A. Device Information: Basic information of an encoder object.

- Name: Specify the name of encoder. The default name is model number.
- Location #1 ~ #4: Specify the location where the encoder is installed. According to a whole system diagram, up to 4-depth location can be specified.
- Description: Input the relevant information on the encoder.
- Quantity: Display the number of cameras for group object.

B. IP Configuration: Network information of an encoder object.

- Address Type: Specify one of network address type.
- IP Address: Enter network IP address.
- Subnet Mask: Enter subnet mask address.
- Gateway: Enter network gateway address.
- DNS Server: Enter DNS server address.

C. Video Setup: Video profile setting of an encoder.

- Scene activity: Specify how complex scene and frequent movement the video has. If a

video includes complex patterns or a lot of movements, select 'HIGH'. Otherwise, the video includes simple background and rare movement, select 'LOW'

- Use: Select or clear whether the encoder uses multiple profiles or not.
- Profile options (Codec/Resolution/Framerate/Compression/Bitrate Type/Bitrate): Specify video settings for each profile.

➢ Switch

A. Device Information: Basic information of a switch object.

- Name: Specify the name of switch.
- Location #1 ~ #4: Specify the location where the switch is installed. According to a whole system diagram, up to 4-depth location can be specified.
- Description: Input the relevant information on the switch.

B. Port Information

- Ports: Verify the number of ports of the switch.
- Port Speed (Mbps): Verify the transmission performance per port.

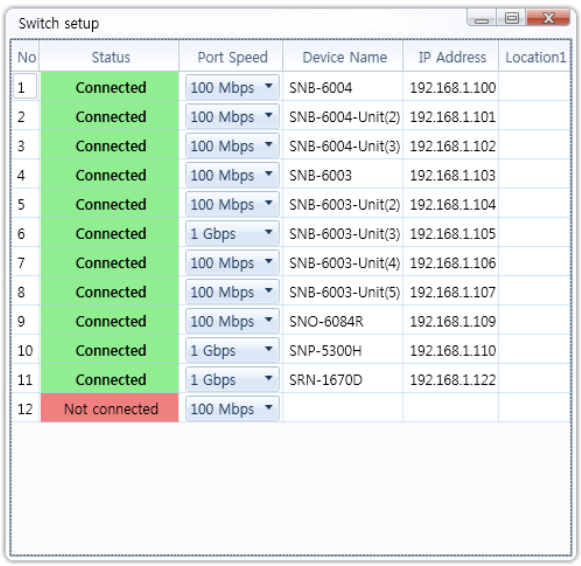
C. Giga Port Information

- Giga Ports: Verify the number of Giga ports of the switch.
- Giga Port Speed (Mbps): Verify the transmission performance per Giga port.

D. PoE Information

- PoE Support: Whether the switch provide PoE functionality.
- PoE Max Power (W): The maximum power consumption of PoE.
- PoE Port Number: The number of PoE ports of the switch.
- PoE+ Port Number: The number of PoE+ ports of the switch.

E. Port Connection Status : Check and change condition of each port on switch.


Switch setup
No
Status
Port Speed
Device Name
IP Address
Location1
1 Connected 100 Mbps SNB-6004 192.168.1.100
2 Connected 100 Mbps SNB-6004-Unit(2) 192.168.1.101
3 Connected 100 Mbps SNB-6004-Unit(3) 192.168.1.102
4 Connected 100 Mbps SNB-6003 192.168.1.103
5 Connected 100 Mbps SNB-6003-Unit(2) 192.168.1.104
6 Connected 1 Gbps SNB-6003-Unit(3) 192.168.1.105
7 Connected 100 Mbps SNB-6003-Unit(4) 192.168.1.106
8 Connected 100 Mbps SNB-6003-Unit(5) 192.168.1.107
9 Connected 100 Mbps SNO-6084R 192.168.1.109
10 Connected 1 Gbps SNP-5300H 192.168.1.110
11 Connected 1 Gbps SRN-1670D 192.168.1.122
12 Not connected 100 Mbps

- Status: Display the connecting status of each port.
- Port Speed: Decide transmission speed of each port. You have a choice of port speed: 1Mbps or 1Gbps.

➢ Hardware/Software NVR

A. Device Information: Basic information of an NVR object.

- Name: Specify the name of NVR.
- Location #1 ~ #4: Specify the location where the NVR is installed. According to a whole system diagram, up to 4-depth location can be specified.
- Description: Input the relevant information on the NVR.

B. IP Configuration: Network information of an NVR object.

- Address Type: Specify one of network address type.
- IP Address: Enter network IP address.
- Subnet Mask: Enter subnet mask address.
- Gateway: Enter network gateway address.
- DNS Server: Enter DNS server address.

C. Device Capabilities: Performance of the NVR.

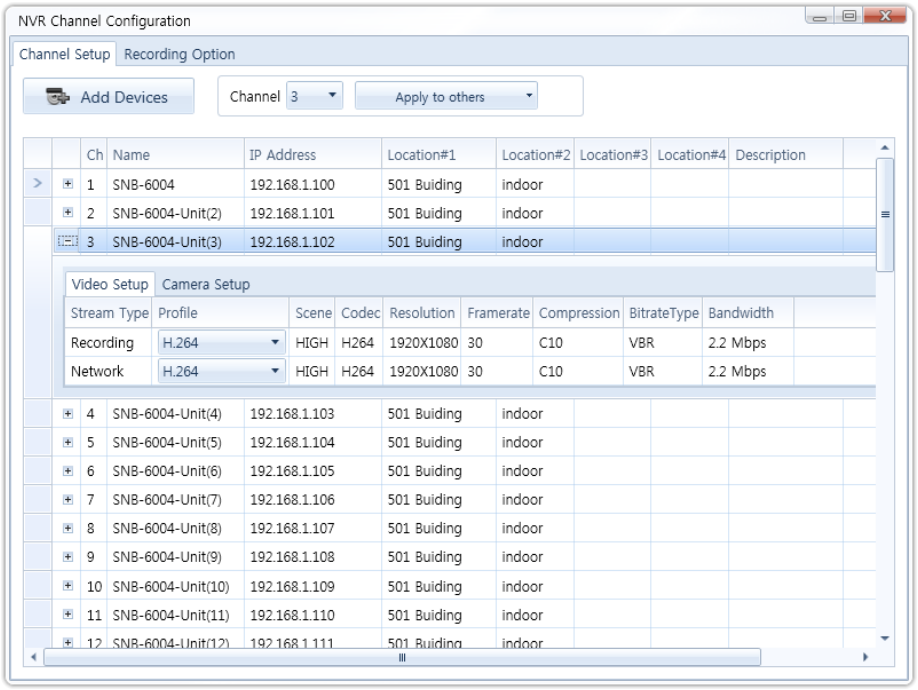
- Channel: Verify the maximum number of channels to be connected to the NVR.
- HDD Size (GB): Specify the recording capacity of the NVR.
- Recording Bit Rate: Specify the recording throughput of the NVR.

D. Channel Configuration: Specify camera/encoder to be connected each channel of NVR.

- Add Device: Resister selected devices for each channel.

> Connectable Network Cameras/Encoders displays only the list of camera and encoder which are physically connected to the NVR in your diagram.

- Apply to others: Apply profile setting to other selected camera.
- Name: Select a model name of device to be connected each channel.
- Ch > Video Setup: Specify one of profiles to be used in the NVR. When selecting a profile, its profile video setting appears.
- Ch > Camera Setup: Specify profile setting of the camera.


NVR Channel Configuration
Channel Setup
Recording Option
Add Devices
Channel 3
Apply to others
Ch Name IP Address Location#1 Location#2 Location#3 Location#4 Description
1 SNB-6004 192.168.1.100 501 Buiding indoor
2 SNB-6004-Unit(2) 192.168.1.101 501 Buiding indoor
3 SNB-6004-Unit(3) 192.168.1.102 501 Buiding indoor
Video Setup
Camera Setup
Stream Type Profile Scene Codec Resolution Framerate Compression BitrateType Bandwidth
Recording H.264 HIGH H264 1920X1080 30 C10 VBR 2.2 Mbps
Network H.264 HIGH H264 1920X1080 30 C10 VBR 2.2 Mbps
4 SNB-6004-Unit(4) 192.168.1.103 501 Buiding indoor
5 SNB-6004-Unit(5) 192.168.1.104 501 Buiding indoor
6 SNB-6004-Unit(6) 192.168.1.105 501 Buiding indoor
7 SNB-6004-Unit(7) 192.168.1.106 501 Buiding indoor
8 SNB-6004-Unit(8) 192.168.1.107 501 Buiding indoor
9 SNB-6004-Unit(9) 192.168.1.108 501 Buiding indoor
10 SNB-6004-Unit(10) 192.168.1.109 501 Buiding indoor
11 SNB-6004-Unit(11) 192.168.1.110 501 Buiding indoor
12 SNB-6004-Unit(12) 192.168.1.111 501 Buiding indoor

➢ CMS

A. Device Information: Basic information of a CMS object.

- Name: Specify the name of CMS.
- Location #1 ~ #4: Specify the location where the CMS is installed. According to a whole system diagram, up to 4-depth location can be specified.
- Description: Input the relevant information on the CMS.

B. IP Configuration: Network information of a CMS object.

- Address Type: Specify one of network address type.
- IP Address: Enter network IP address.
- Subnet Mask: Enter subnet mask address.
- Gateway: Enter network gateway address.
- DNS Server: Enter DNS server address.

C. Device Capabilities: Display maximum number of connectable devices for live monitoring.

D. Advanced Setup - CMS Device Configuration: Open the advanced setting window for CMS.

- Device>Add Device: Resister selected devices for monitoring

> Connectable Network Cameras/Encoders displays only the list of camera and encoder which are physically connected to the CMS in your diagram.

- CMS Live Channel>CMS Live Channels: Resister selected devices for live monitoring

> Connectable Network Cameras/Encoders displays only the list of camera and encoder which are physically connected to the CMS in your diagram.
>
> You can select specific profile for live monitoring from each device.

> If you don't choose any profile before registration device, system resister profile no.2 for live monitoring automatically.

➢ SSM

> All of setting for SSM(Samsung Security Manager) system is implemented in SSM-Console.

A. Device Information: Basic information of a SSM object.

- Name: Specify the name of SSM.
- Location #1 ~ #4: Specify the location where the SSM is installed. According to a whole system diagram, up to 4-depth location can be specified.
- Description: Input the relevant information on the SSM.

B. SSM Configuration: Network information of a SSM object.

- SSM Type: Displays which type of SSM the object is.
  i. SSM-System Manager: It manages SSM Media Gateways. Up to 4 Media Gateways are connectable.
  ii. SSM-Media Gateway: It receives media data by directly connecting with camera, NVR, and encoder.
  iii. SSM-Console: It provides monitoring environment. It links to SSM System Manager and views video through Media Gateway registering on the System Manager.
  iv. SSM-Standalone: Installing and using all the System Manager, Media Gateway, and Console in a single PC.
- Console Setup: Configurable when [SSM-Console] or [SSM-Standalone] selected. Specify one of SSM System Manager physically connected. Select cameras, NVRs, and encoders to be monitored from the list.
- Media Gateway Setup: Configurable when [SSM-Media Gateway] or [SSM-Standalone] selected. Select cameras, NVRs, and encoders from the list.
- System Manager Setup: Configurable when [SSM-System Manager] or [SSM-Standalone] selected. Select one of Media Gateway from the list.

C. IP Configuration: Network information of a SSM object.

- Address Type: Specify one of network address type.
- IP Address: Enter network IP address.
- Subnet Mask: Enter subnet mask address.
- Gateway: Enter network gateway address.
- DNS Server: Enter DNS server address.

D. Device Capabilities: Display maximum number of connectable devices on SSM.

E. Advanced Setup - SSM Console Configuration

- Configuration Manager>System Manager: Select SSM-System Manager for connecting to SSM Console, or, delete selected SSM-System Manager.

> Connectable SSM-System Manager displays only the list of camera and encoder which are physically connected to the SSM Console in your diagram.
>
> Only single SSM-System Manager is able to connect to single SSM Console.

- Configuration Manager>Media Gateway: Set SSM-Media Gateway for connecting to SSM-System Manager.

i. : Resister SSM-Media Gateway to SSM-System Manager

> Connectable SSM-Media Gateway displays only the list of camera and encoder which are physically connected to the SSM-System Manager in your diagram.
>
> Maximum 4EA SSM-Media Gateway are able to connect single SSM-System Manager.

ii. : Delete all SSM-Media Gateways are connected in SSM-System Manager.

iii. : Delete selected SSM-Media Gateways.

iv. : Resister Network Camera/NVR/Encoder in selected SSM-Media Gateway.

> Connectable Network Cameras/Encoders displays only the list of camera and encoder which are physically connected to the SSM-Media Gateway in your diagram.

- Device List : Console에 연결되어 있는 장비의 목록을 확인하고 각 장비의 상세 설정을 변경할 수 있습니다.
- Live Channels>Console Live Channels : Console에서 라이브 모니터링을 할 장비를 등록합니다.

> Connectable Network Cameras/Encoders displays only the list of camera and encoder which are physically connected to the SSM Console in your diagram.
>
> You can select specific profile for live monitoring from each Network Camera and Encoder.
>
> If you don't choose any profile before registration device, system resister profile no.2 for live monitoring automatically.

-

➢ DVR / Analogue Camera / ETC

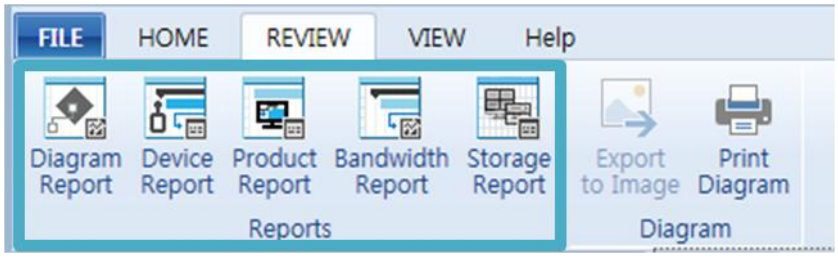
A. Device Information: Basic information of object.

- Name: Specify the name of object.

- Location #1 ~ #4: Specify the location where the device is installed. According to a whole system diagram, up to 4-depth location can be specified.
- Description: Input the relevant information on the object.

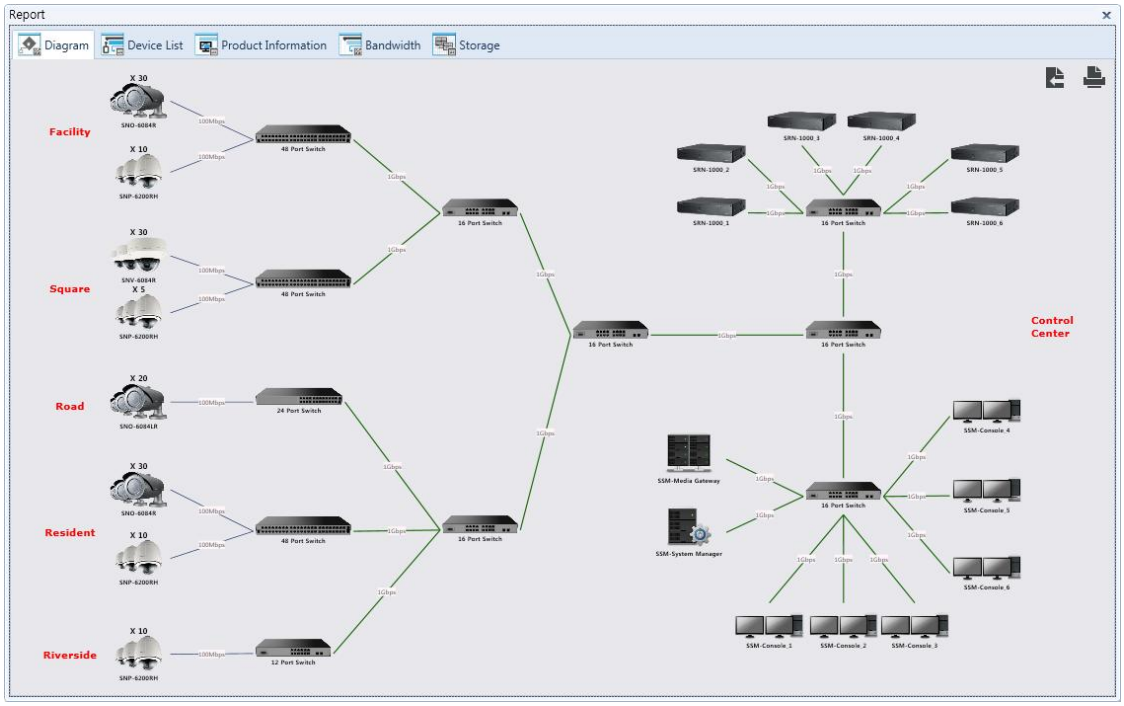
6. Make a report

You can issue a report in order to make it easy to understand system configuration of your diagram. There are 4 different types of report in [REVIEW] > [Reports].



➢ Diagram Report

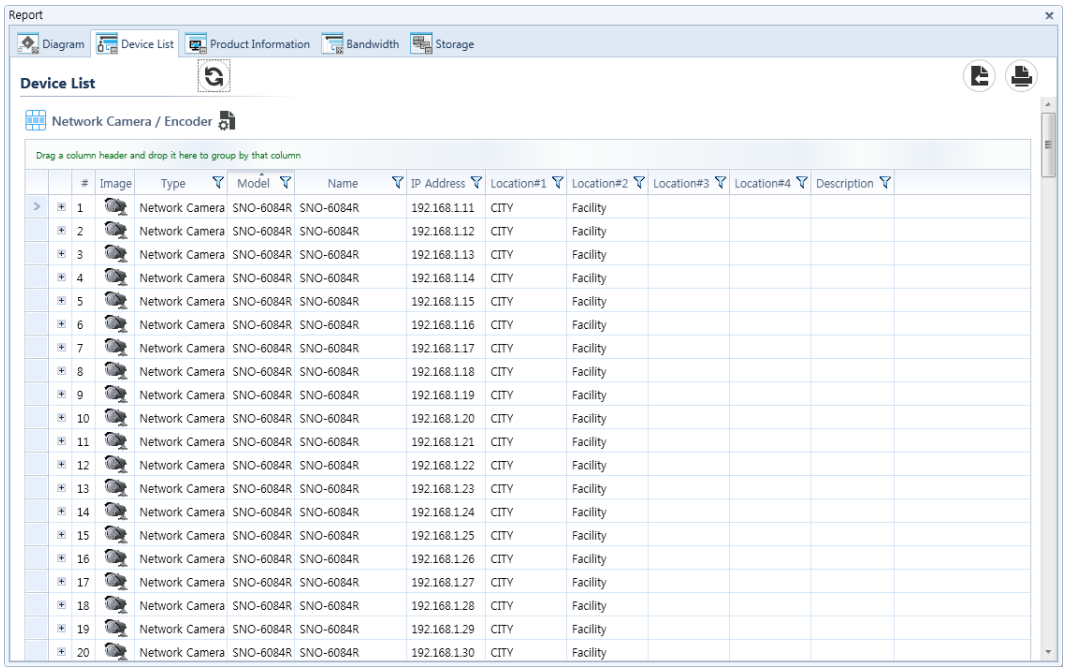
You can see an entire system layout of your diagram.



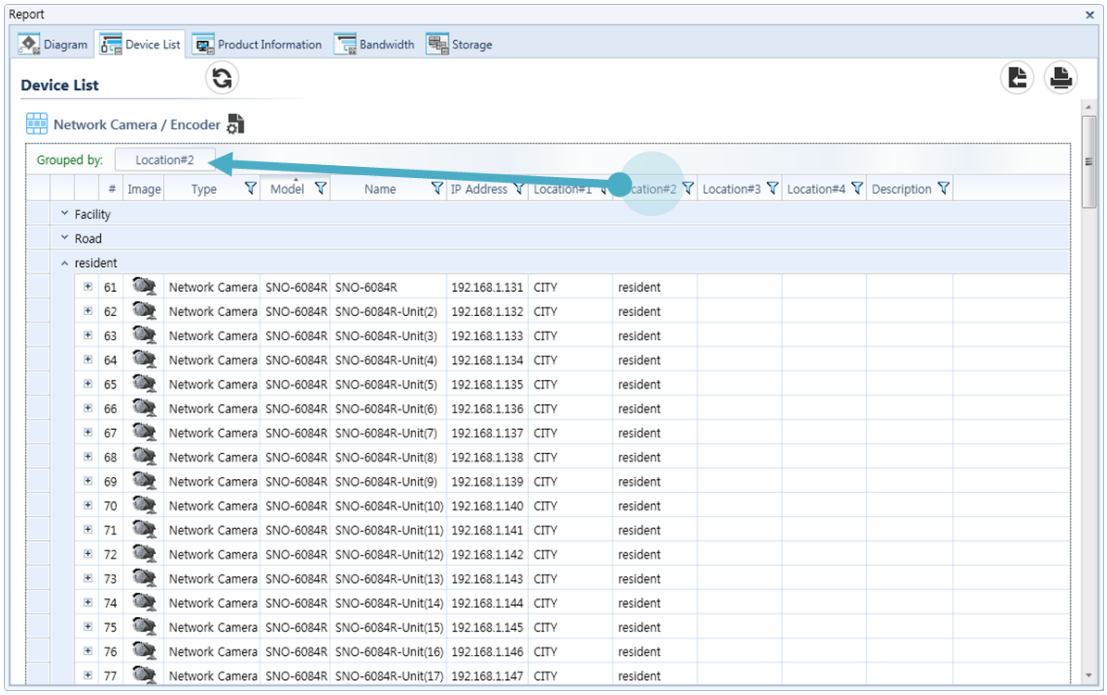
The diagram can be exported as PNG and BMP format. It is also printable.

➢ Device Report

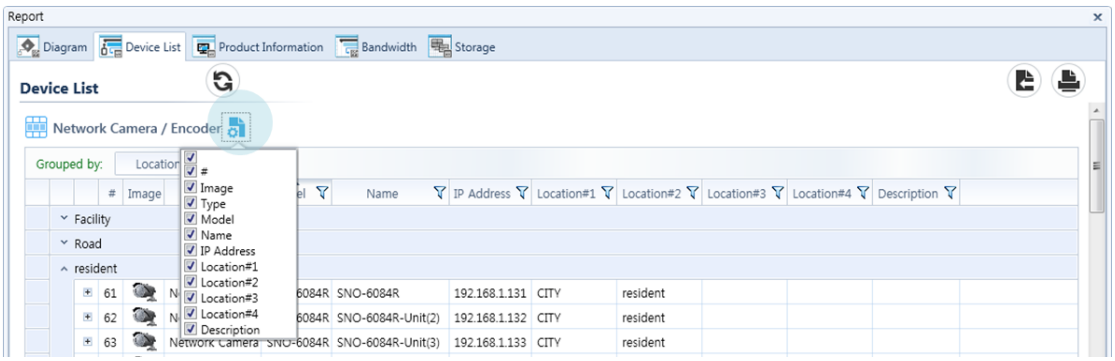
You can see entire object list included in system diagram. The list includes each object properties.


Report
Diagram
Device List
Product Information
Bandwidth
Storage
Device List
Network Camera / Encoder
Drag a column header and drop it here to group by that column
Image Type Model Name IP Address Location#1 Location#2 Location#3 Location#4 Description
1 Network Camera SNO-6084R SNO-6084R 192.168.1.11 CITY Facility
2 Network Camera SNO-6084R SNO-6084R 192.168.1.12 CITY Facility
3 Network Camera SNO-6084R SNO-6084R 192.168.1.13 CITY Facility
4 Network Camera SNO-6084R SNO-6084R 192.168.1.14 CITY Facility
5 Network Camera SNO-6084R SNO-6084R 192.168.1.15 CITY Facility
6 Network Camera SNO-6084R SNO-6084R 192.168.1.16 CITY Facility
7 Network Camera SNO-6084R SNO-6084R 192.168.1.17 CITY Facility
8 Network Camera SNO-6084R SNO-6084R 192.168.1.18 CITY Facility
9 Network Camera SNO-6084R SNO-6084R 192.168.1.19 CITY Facility
10 Network Camera SNO-6084R SNO-6084R 192.168.1.20 CITY Facility
11 Network Camera SNO-6084R SNO-6084R 192.168.1.21 CITY Facility
12 Network Camera SNO-6084R SNO-6084R 192.168.1.22 CITY Facility
13 Network Camera SNO-6084R SNO-6084R 192.168.1.23 CITY Facility
14 Network Camera SNO-6084R SNO-6084R 192.168.1.24 CITY Facility
15 Network Camera SNO-6084R SNO-6084R 192.168.1.25 CITY Facility
16 Network Camera SNO-6084R SNO-6084R 192.168.1.26 CITY Facility
17 Network Camera SNO-6084R SNO-6084R 192.168.1.27 CITY Facility
18 Network Camera SNO-6084R SNO-6084R 192.168.1.28 CITY Facility
19 Network Camera SNO-6084R SNO-6084R 192.168.1.29 CITY Facility
20 Network Camera SNO-6084R SNO-6084R 192.168.1.30 CITY Facility

You can sort the objects as drag a column header onto the top of the report dialog. Then the list automatically reorders by the selected columns. Multiple columns can be selected.


Report
Diagram
Device List
Product Information
Bandwidth
Storage
Device List
Network Camera / Encoder
Grouped by: Location#2
Image Type Model Name IP Address Location#1 Location#2 Location#3 Location#4 Description
Facility
Road
resident
61 Network Camera SNO-6084R SNO-6084R 192.168.1.131 CITY resident
62 Network Camera SNO-6084R SNO-6084R-Unit(2) 192.168.1.132 CITY resident
63 Network Camera SNO-6084R SNO-6084R-Unit(3) 192.168.1.133 CITY resident
64 Network Camera SNO-6084R SNO-6084R-Unit(4) 192.168.1.134 CITY resident
65 Network Camera SNO-6084R SNO-6084R-Unit(5) 192.168.1.135 CITY resident
66 Network Camera SNO-6084R SNO-6084R-Unit(6) 192.168.1.136 CITY resident
67 Network Camera SNO-6084R SNO-6084R-Unit(7) 192.168.1.137 CITY resident
68 Network Camera SNO-6084R SNO-6084R-Unit(8) 192.168.1.138 CITY resident
69 Network Camera SNO-6084R SNO-6084R-Unit(9) 192.168.1.139 CITY resident
70 Network Camera SNO-6084R SNO-6084R-Unit(10) 192.168.1.140 CITY resident
71 Network Camera SNO-6084R SNO-6084R-Unit(11) 192.168.1.141 CITY resident
72 Network Camera SNO-6084R SNO-6084R-Unit(12) 192.168.1.142 CITY resident
73 Network Camera SNO-6084R SNO-6084R-Unit(13) 192.168.1.143 CITY resident
74 Network Camera SNO-6084R SNO-6084R-Unit(14) 192.168.1.144 CITY resident
75 Network Camera SNO-6084R SNO-6084R-Unit(15) 192.168.1.145 CITY resident
76 Network Camera SNO-6084R SNO-6084R-Unit(16) 192.168.1.146 CITY resident
77 Network Camera SNO-6084R SNO-6084R-Unit(17) 192.168.1.147 CITY resident

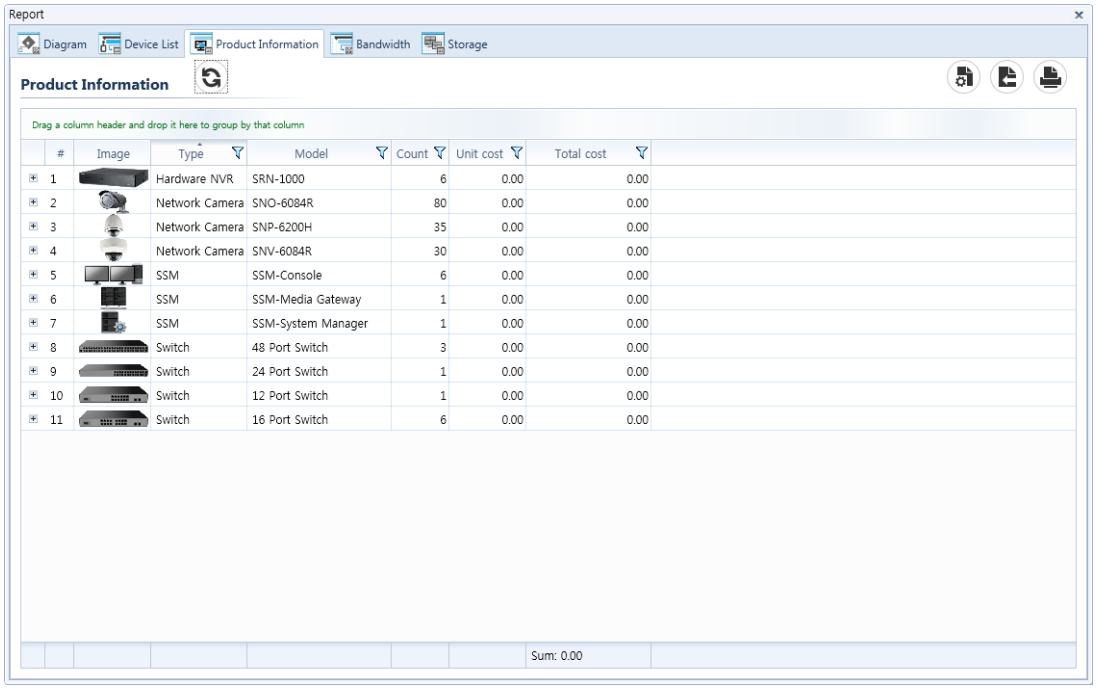
You can specify the column list to be shown. Click [Choose Columns] on the top right side of the report dialog.



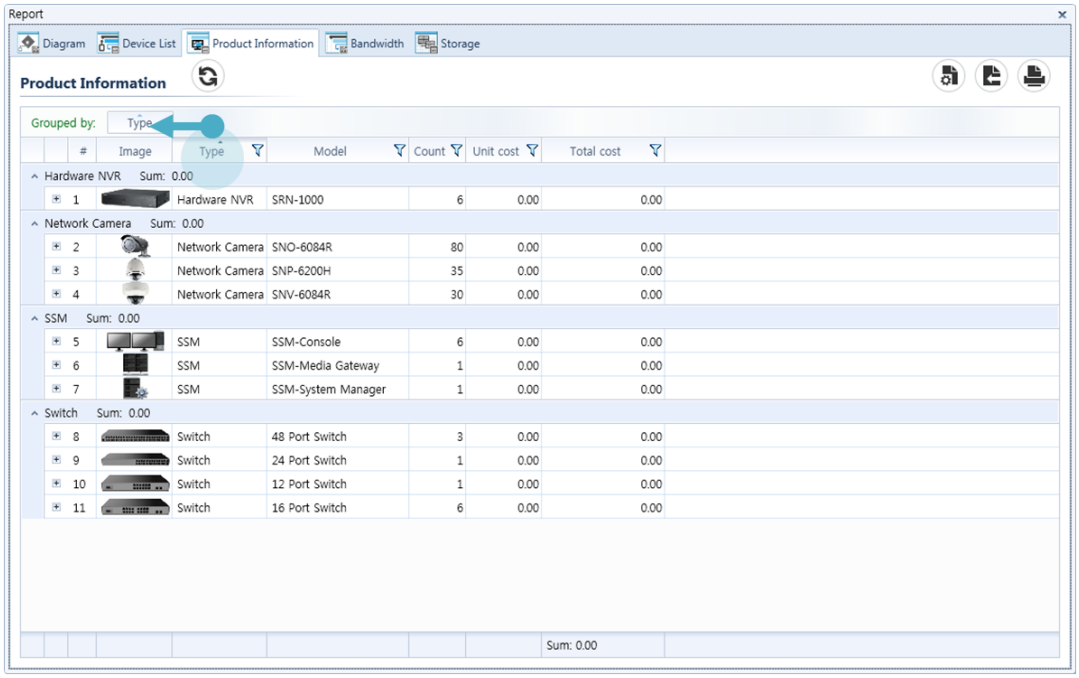
The device list can be exported as Excel, Word, and PDF format. It is also printable.

➢ Product Report

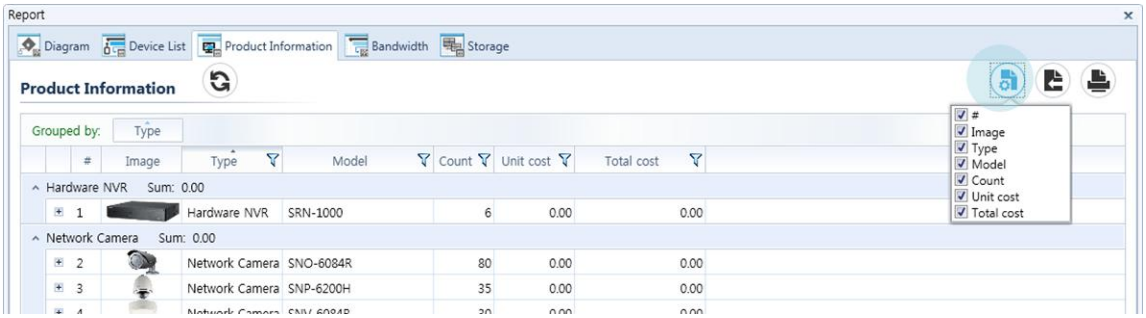
You can see entire product list included in system diagram. When two or more products of the same model name included in a diagram, it counts and displays its quantity. It would be useful when you verify how many products of the same model name there are. This report has price column [unit cost/total cost/sum] column, so you can get the cost of total system.


Report
Diagram
Device List
Product Information
Bandwidth
Storage
Product Information
Drag a column header and drop it here to group by that column
Image Type Model Count Unit cost Total cost
1 Hardware NVR SRN-1000 6 0.00 0.00
2 Network Camera SNO-6084R 80 0.00 0.00
3 Network Camera SNP-6200H 35 0.00 0.00
4 Network Camera SNV-6084R 30 0.00 0.00
5 SSM SSM-Console 6 0.00 0.00
6 SSM SSM-Media Gateway 1 0.00 0.00
7 SSM SSM-System Manager 1 0.00 0.00
8 Switch 48 Port Switch 3 0.00 0.00
9 Switch 24 Port Switch 1 0.00 0.00
10 Switch 12 Port Switch 1 0.00 0.00
11 Switch 16 Port Switch 6 0.00 0.00
Sum: 0.00

You can sort the objects as drag a column header onto the top of the report dialog. Then the list automatically reorders by the selected columns. Multiple columns can be selected.


Report
Diagram
Device List
Product Information
Bandwidth
Storage
Product Information
Grouped by: Type
Image Type Model Count Unit cost Total cost
Hardware NVR Sum: 0.00
1 Hardware NVR SRN-1000 6 0.00 0.00
Network Camera Sum: 0.00
2 Network Camera SNO-6084R 80 0.00 0.00
3 Network Camera SNP-6200H 35 0.00 0.00
4 Network Camera SNV-6084R 30 0.00 0.00
SSM Sum: 0.00
5 SSM SSM-Console 6 0.00 0.00
6 SSM SSM-Media Gateway 1 0.00 0.00
7 SSM SSM-System Manager 1 0.00 0.00
Switch Sum: 0.00
8 Switch 48 Port Switch 3 0.00 0.00
9 Switch 24 Port Switch 1 0.00 0.00
10 Switch 12 Port Switch 1 0.00 0.00
11 Switch 16 Port Switch 6 0.00 0.00
Sum: 0.00

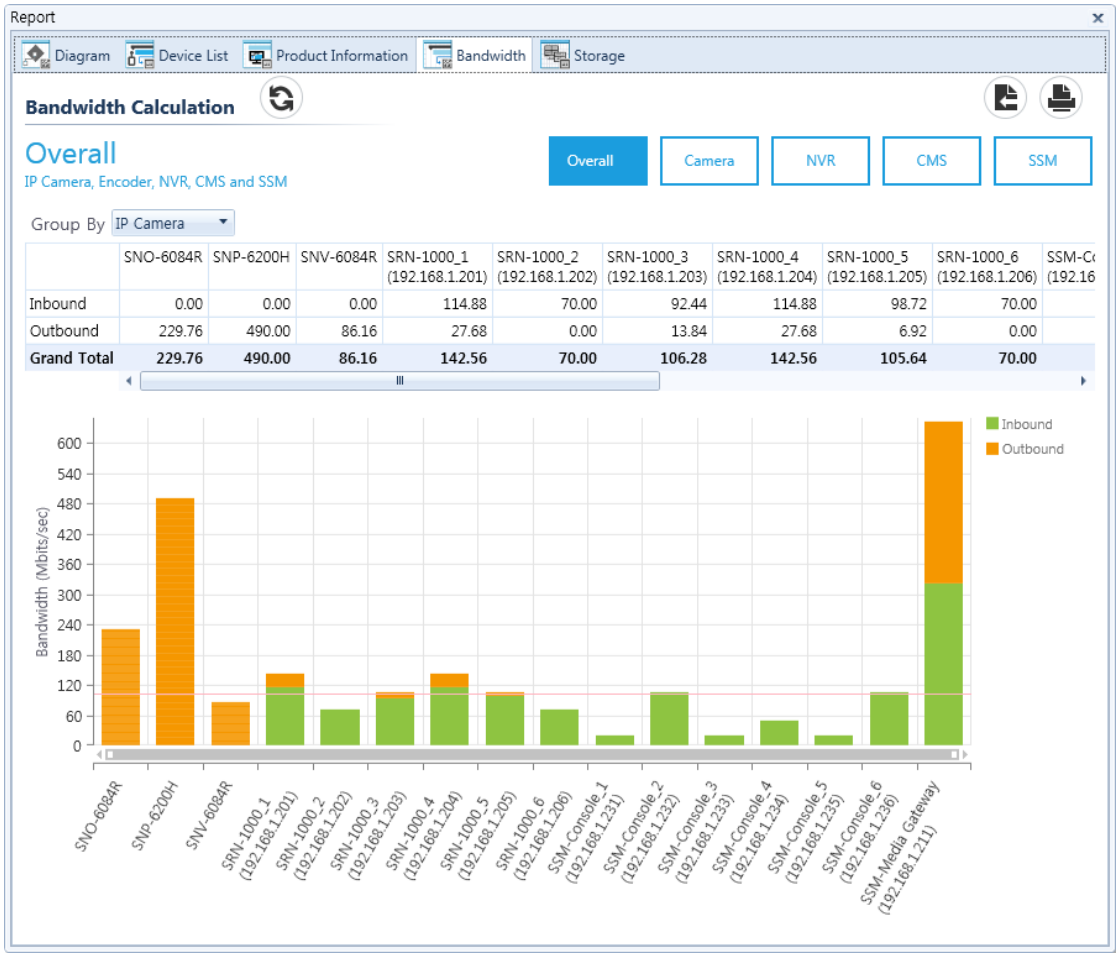
You can specify the column list to be shown. Click [Choose Columns] on the top right side of the report dialog.



The device list can be exported as Excel, Word, and PDF format. It is also printable.

➢ Bandwidth Report

The bandwidth usage chart to be shown indicates the inbound and outbound bandwidth of the current system diagram.

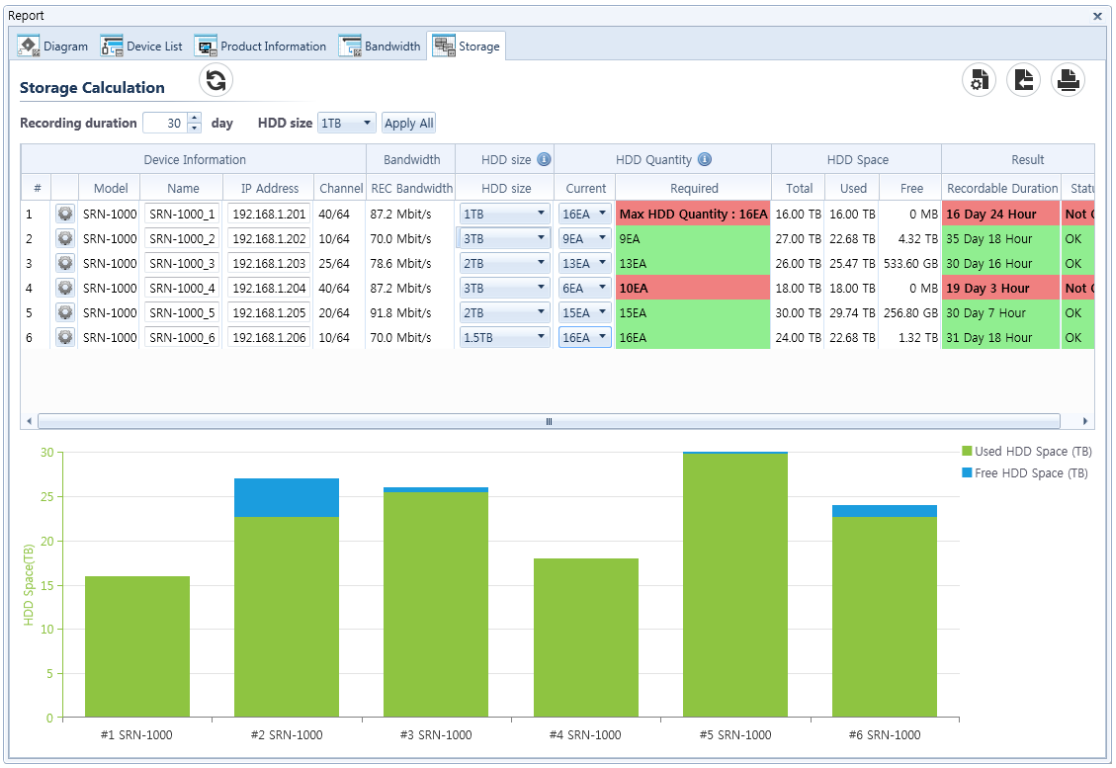


The bandwidth report can be exported as Word and PDF format. It is also printable.

> The current release only supports the inbound and outbound bandwidth of Samsung Techwin products. The bandwidth for switch will be supported later.

➢ Storage Report

Calculate HDD quantities for current system from recording duration and HDD size.



#	Model	Name	IP Address	Channel	REC Bandwidth	HDD size	Current	Required	Total	Used	Free	Recordable Duration
1	SRN-1000	SRN-1000_1	192.168.1.201	40/64	87.2 Mbit/s	1TB	16EA	Max HDD Quantity : 16EA	16.00 TB	16.00 TB	0 MB	16 Day 24 Hour
2	SRN-1000	SRN-1000_2	192.168.1.202	10/64	70.0 Mbit/s	3TB	9EA	9EA	27.00 TB	22.68 TB	4.32 TB	35 Day 18 Hour
3	SRN-1000	SRN-1000_3	192.168.1.203	25/64	78.6 Mbit/s	2TB	13EA	13EA	26.00 TB	25.47 TB	533.60 GB	30 Day 16 Hour
4	SRN-1000	SRN-1000_4	192.168.1.204	40/64	87.2 Mbit/s	3TB	6EA	10EA	18.00 TB	18.00 TB	0 MB	19 Day 3 Hour
5	SRN-1000	SRN-1000_5	192.168.1.205	20/64	91.8 Mbit/s	2TB	15EA	15EA	30.00 TB	29.74 TB	256.80 GB	30 Day 7 Hour
6	SRN-1000	SRN-1000_6	192.168.1.206	10/64	70.0 Mbit/s	1.5TB	16EA	16EA	24.00 TB	22.68 TB	1.32 TB	31 Day 18 Hour

- HDD Size > HDD Size : Select HDD Size for connect to each NVR.
- HDD Quantity > Current : Select HDD quantities for connect to each NVR.
- HDD Quantity > Required : Display number of HDDs required to recording.

  > Green Cell: Setting value of HDD size and quantities is suitable for recording.

  > Red Cell: Setting value of HDD size and quantities is NOT suitable for recording.

> When appear red cell, system displays a required minimum quantities of HDD. If the required minimum quantities over than maximum quantities of HDD which are able to connect to single, system displays [Max HDD Quantity:] for notice NVR's limitation.

7. Export and Print your diagram

You can export or print your diagram.

➢ Export to Image

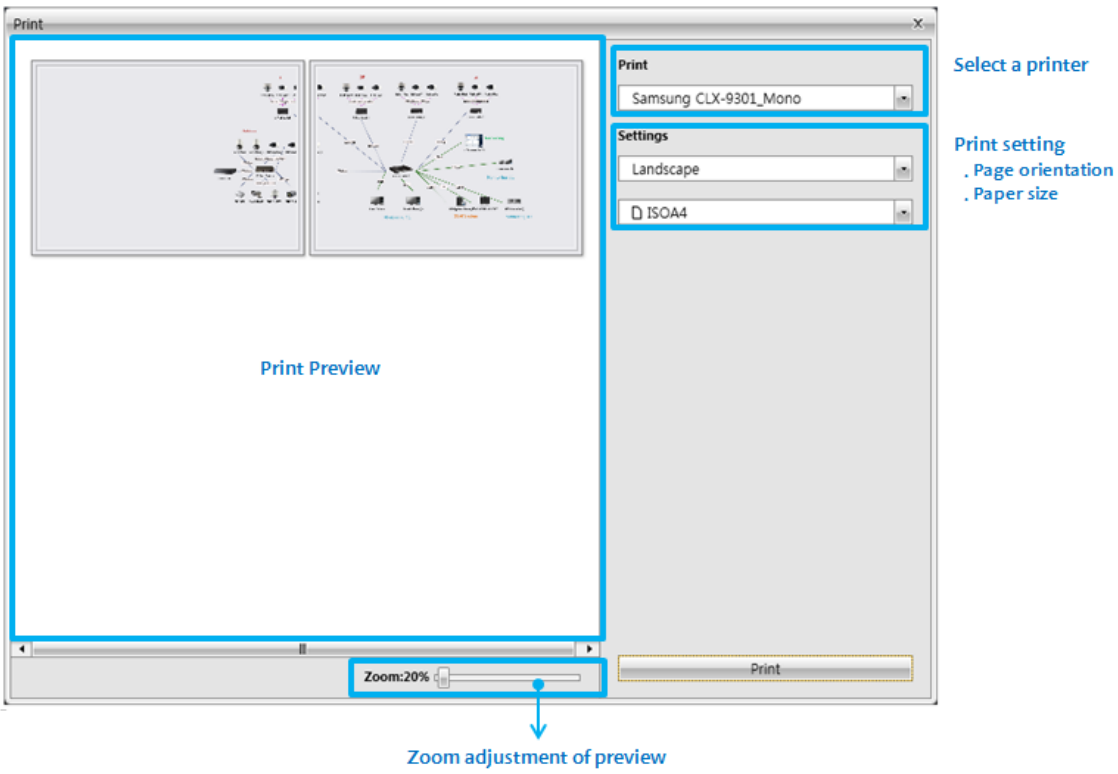
You can save your diagram as a standard image file in PNG format in directly from [REVIEW] > [Diagram] > [Export to Image].

➢ Print Diagram

You can print your diagram. Click [REVIEW] > [Diagram] > [Print Diagram]. In the [Print] dialog box, do the following:

- In the preview, see how the diagram will look when printed.
- In the [Print], select the printer that you want (if it is not already selected).
- Under [Settings], specify the diagram orientation, one of landscape and portrait, and its paper size.

Click [Print] when you are ready to print.



8. Change the application setting

➢ Program language setting

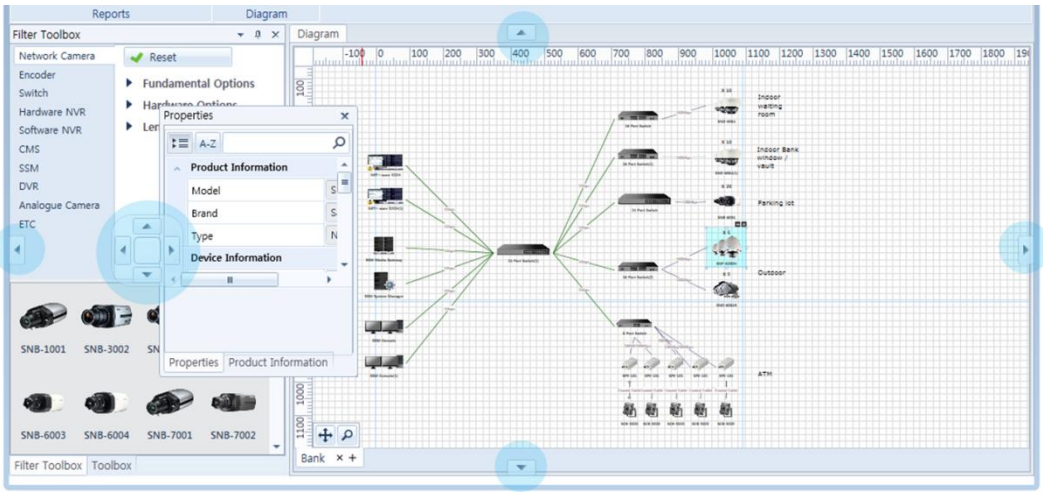
Click [FILE] > [Options]. You can change the language of application.

➢ Task pane setting

You can customize the task pane arrangement of application. Changed task pane setting is saved and applied to restarting application automatically.

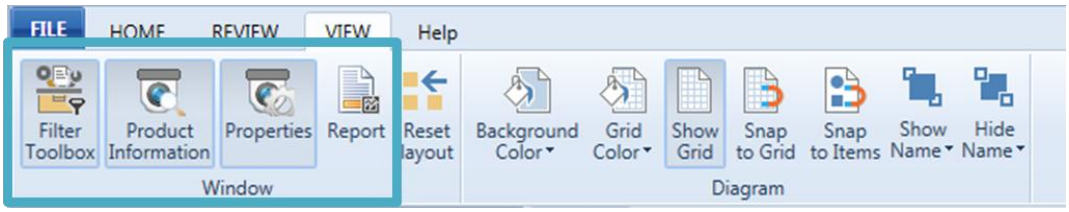
A. Move a pane

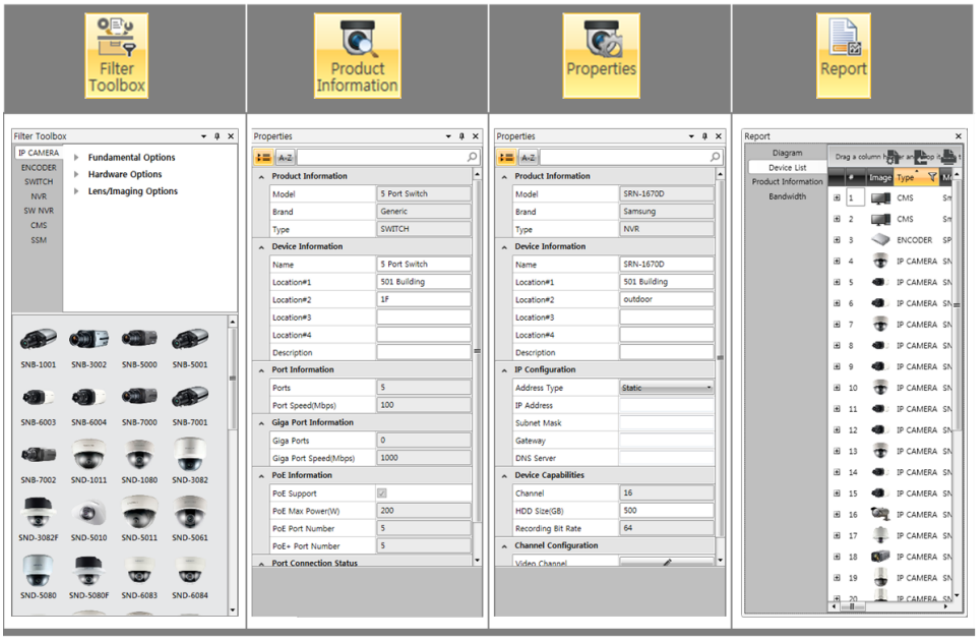
To move each pane, drag the pane title or title tab to the new location. If you drag the pane arrows appears to indicate where to move. When you drop the pane on an arrow, it becomes docked.



B. Show/Hide each pane

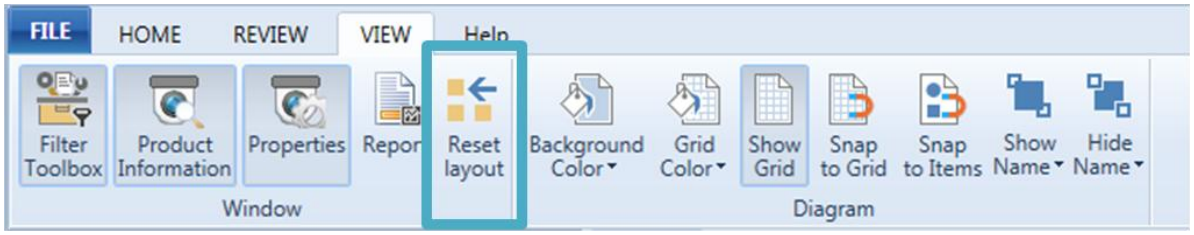
Click [VIEW] > [Window]. You can show each pane by click the control as selected button. You can close the pane by click again as unselected button.





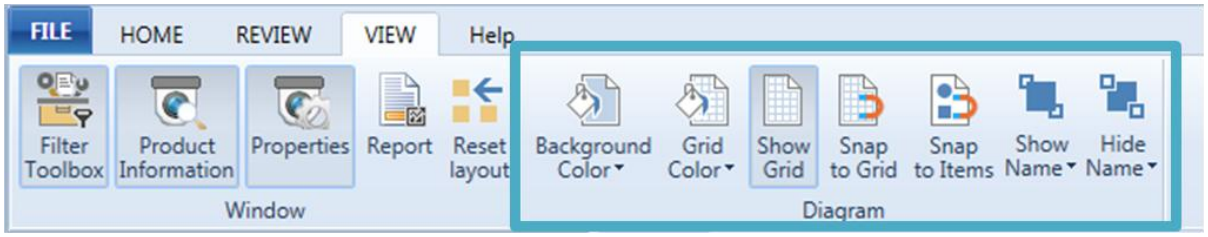
➢ Layout resetting

Click [VIEW] > [Window] and select [Reset layout] button. This reset the changed task pane to default setting.



➢ Diagram pane setting

The lines of the grid crisscross on diagram pane help you position shapes on your diagram.



A. Background Color: To change the background color of a diagram.

B. Grid Color: To change the grid color.

C. Show Grid: To specify to show or clear the grid on a diagram.

D. Snap to Grid: To position objects or objects to the closest intersection of the grid.

E. Snap to Items: To move an object to snap to the nearest object.

F. Show Name

- Show name of all: Show name or property of all devices and connections on a diagram
- Show name of all devices: Show name of all devices on a diagram
- Show name of all connections : Show property of all connections on a diagram
- Show name of the selected item: Show name or property of selected devices and connections on a diagram

G. Hide Name

- Hide name of all: Hide name or property of all devices and connections on a diagram
- Hide name of all devices: Hide name of all devices on a diagram
- Hide name of all connections: Hide property of all connections on a diagram
- Hide name of the selected items: Hide name or property of selected devices and connections on a diagram

Appendix) Revision history

Version	Date	Changes and improvements
1.3.0	2013-12-20	[New features] · Add new connection styles. ■ Straight, Polyline, Spline and Beizier · Add a new function to show/hide the name of objects including connections. · Add a new function to insert images on the diagram. ■ support to png, bmp, jpg/jpeg file formats. · Add a new function to paste a image in clipboard. ■ support png, bmp, jpg/jpeg and visio objects. · Add the Find tab to search shape more easily in Filter ToolBox. ■ Ctrl+F to search the object directly. [Modified features] · After saving a sample file as another name, can't save the file again. · Does not save Z-Order information of objects in a file. · If it take much time to open a report window, change mouse cursor to a busy indicator. · Peformance optimization of Report window. [Changed/Improved features] · Remove ToolBox Window. · Change status of PoE properties of Switch ediatable.
1.2.0	2013-11-15	[New features] · Output the separated result report on BW calculating for each device · Add the storage report · Add automatic set-up function for IP address · Add new function and apply new UI on Advanced Setup page ■ NVR - Add channel configuration page. Add function for apply the channel setting across-the-board. ■ CMS- Add device configuration page and live channel setting page ■ SSM- Add setting page of Console, Media Gateway and system manager. Add live channel setting page. ■ Network Camera/Encoder - Add setting IP address and profile for device in the group ■ Display disconnect status of registered devices · Add grouping/ungrouping function for selected objects · Change the pointer between 'Pointer' and 'Connector' by double-click space on diagram · Add reference guide document and improve sample project file. · Add Shape : Wireless AP, Cloud, SSM Mobile, iPOLiS Mobile, Video Wall, SPD-400, SVM · Add new connection type : Wireless, ETC · Add Custom Switch - It's able to change the port number from 1 to 512. · Add Help menu on main menu bar

		■ Change the position of help button from Home menu to main menu bar. ■ Add menu button for online tutorial, Home page, Contact us and About ・ Support scroll bar for diagram ■ If all objects are not able to display on the diagram, scroll bar appear automatically ・ Add supported language : French ・ Keyboard Support for diagram (en) ■ arrow key, Ctrl + arrow key - slightly nudge the selection ■ Ctrl + Shift + arrow key - moved the selection further than arrow key ■ F2 - begins editing diagram item ■ Ctrl + G - groups the selected items // Ctrl + U - ungroup the selected groups [Modified features] ・ Fix failure to applying data issue when change bandwidth for CBR on Camera/Encoder profile. ・ Fix font information issue on loading saved project. ・ Fix connection error when re-connect other product with existed connection. ・ Fix copied object information disappeared issue. ・ Keep setting information of system when copy&paste some objects ・ Improve scenario of NVR calculation ・ Fix non-activation issue for saving button when create new project after loading sample file. ・ Fix automatic connection error between SSM and Switch by coaxial cable ・ Improve UI of report - Device and product information ・ Change the scenario of camera profile - It is impossible to disable and change codec of #1 and #2 profile. ・ Fix position initialization issue when user set the connection point manually [Changed/Improved features] ・ Change maximum number of cameras on single group to 64 ・ Change maximum port number of Stackable Switch to 288 ・ Disable to support save files from v1.0 and v1.1 ・ Change component information of video at NVR, CMS and SSM ・ Delete DHCP setting option of IP address
1.2.0	2013-11-15	
1.1.0	2013-08-30	[New features] ・ Support Multi language ・ Support Multi documents (Max. 10) ・ Support group object ・ Add analog camera/DVR/Mobile object ・ Add ruler on diagram ・ Add analog connector ・ Support a list of recent files ・ Support a list of sample files ・ Support to reset layout ・ Add [price] column on device list report

1.1.0	2013-08-30	[Modified features] · Fix the autoalignment error, when resize toolbox window · Fix the setting error of VBR/CBR in video setup of network camera/encoder [Changed/Improved features] · Change UI theme of application · Change UI of some menus · Change image of some objects · Change video setting to get H.264 profile automatically , when connect network camera to NVR, CMS and SSM · Change object image to be able to resize · Change copy/paste object to include properties
1.0.0	2013-07-15	· The first official release